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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
NGUYEN, MADELEINE ANH VINH	
ART UNIT	PAPER NUMBER
2625	

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/662,756	OHGA, MANABU	
	Examiner	Art Unit	
	Madeleine AV Nguyen	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 March 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12 and 16-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *16-22* is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on March 08, 2006 have been fully considered but they are not persuasive for the following reasons:

a. Applicant remarks that nothing has been found, or pointed out, in Kouzaki that teaches, or even hits at the step of converting, after said correcting step, the corrected input color image signal produced in the correcting step into an achromatic image signal when it is determined in the determining step that the input color image signal represents achromatic color.

In Fig.10, Kouzaki teaches, "the adjustment of image data to the lightning condition may be made in the black generating section 84." (col. 6, lines 6-8). Kouzaki further teaches, "In a judging section 95, judgment of an achromatic color or a chromatic color is made from the data (R, G, B) ... The UCR/BP correction data are practically curves C1, C2 and other curves converted from a standard UCR/BP characteristic curve C. With a correction is accordance with the curve C1, the reproduce color shifts to a chromatic side, and with a correction in accordance with the curve C2, the reproduced color shifts to an achromatic side." (col. 6, lines 6-35). In addition, "The UCR/BP control ROMs 96 and 98 are also stored with adjustment data which adjust the UCR/BP characteristic curves to the respective lightning conditions." (col. 6, lines 47-50). Thus, the UCR/BP corrects the color image signal according to an observation condition to produce a corrected color image signal as claimed. From Fig.10, we can see the corrected color signal is transferred to the black generating section 84 which converts the corrected color signal

to C' M' Y' Bk'. In case it is determined that the color image signal is achromatic in the achromatic/chromatic color judging section 95, C' M' Y' Bk' output from the black generating section 84 will be achromatic signal. Thus, Kouzaki's teaching can read on the claimed invention.

Therefore, the rejection of claims 1-12 is maintained.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1- 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Kouzaki (US Patent No. 5,446,476).

Concerning claims 1 and 8, Kouzaki discloses an image processing apparatus and method (Figs.6 and 10) comprising means for or steps of receiving an input color signal (5), determining whether or not a received inputted color image signal represents achromatic color (95); correcting the input color image signal (96) according to an observation condition (lighting condition) to produce a corrected input color image signal (84); converting (84), after the correction step, the corrected input color image signal produced in the correcting step into an achromatic color image signal (C'M'Y'Bk') when it is determined in the determining step that the input color image signal represents achromatic color, (Figs. 1, 3, 4, 6, 10, 12; col. 4, line 56–68; col. 5, lines 18-50; col. 6, lines 6-52).

It is noted that in the case of achromatic image signal, the UCR/BP correction uses the curves C2 wherein the reproduced color shifts to an achromatic side for achromatic image signal (Figs.11-12). Since the corrected image signal is achromatic image signal, the conversion in the black generating section 84 will convert the corrected achromatic image signal to achromatic image signal C'M'Y' Bk'.

Concerning claims 2-7, 10-12, Kouzaki further teaches that the input color image signal (DR,DG,DB) depends on an input-side observation condition (lighting condition) and is independent on a device (R, G, B density values), (Figs.3-4, 10; col. 4, lines 53-68; col. 5, lines 51 – col. 6, line 5), (claim 2); wherein the color image signal is represented by an RGB color space according to a standard white point of an input-side observation light (Fig.4; col. 4, lines 56-68), (claim 3); in the correction step, the inputted color image signal, which depends on an input-side observation condition (Fig.4) is transformed into a corrected input color image signal, which depends on an output side observation condition (Figs.20-23) and wherein, when the input color image signal, which depends on the input-side observation condition, is determined in the determining step (95) to represent achromatic color, the achromatic color image signal produced in the converting step by converting the corrected input color image signal produce in the correcting step, is an achromatic color signal according to output-side observation light (the lightning condition input to the color balancing section 88 in Fig.15 or to the gamma correction section 89 in Fig.18), (col. 7, line 5 – col. 8, line 35), (claim 4); transforming a device dependent color image signal (RGB) into a device-independent color image signal (DR, DG, DB) based on an input profile (the setting in Figs.2-4), wherein whether or not the transforming step is executed depends on information in the input profile or users manual instruction (col.4, lines 23-

52), (claims 5-6); converting the corrected input color image signal into an output-device-dependent color image signal (YMCK) based on an output profile (Figs.20-23; col. 7, line 64 – col. 8, line 64), (claim 7); obtaining a conversion condition for converting the input color image signal (RGB) into a device-independent a color space (DR, DG, DB), (Fig.10) based on a standard white point of input-side light, converting the input color image signal according to the conversion condition, and wherein the determining step includes determining whether or not the converted input color image signal represent achromatic color (82-95, Fig.10), (claim 10); the color space is defined by red, green and blue color components (Fig.6, 8 or 10), (claim 11); the correction of the input color image signal according to the observation condition is based on a color appearance model (Figs.3-4, 20-23) and performs non-linear correction (Figs.11-12), (claim 12).

Concerning claim 9, Kouzaki discloses a storage recording medium (in a computer) for storing a computer-readable program with a plurality of codes for executing an image processing method as discussed in claim 1 above.

Allowable Subject Matter

3. Claims 16-22 are allowed.

4. The following is an examiner's statement of reasons for allowance: Claims 16-18 are allowable over the prior art of record because the Examiner found neither prior art cited in its entirety, nor based on the prior art, found any motivation to combine any of the said prior art which teaches an image processing apparatus or method or a computer readable medium for storing a program executing an image processing method comprising means for or steps of

correcting, using a non-linear model according to the input-side observation condition and an output-side observation condition, the color image signal to generate a color image signal according to the output-side observation condition; determining whether or not the color image signal represents achromatic color by determining whether or not the red component, the green component, and the blue component, composing the output-device-dependent color image signal, are approximately equal, wherein, when it is determined that the color image signal represents achromatic color, correcting the color image signal according to the output-side observation condition to represent achromatic color and executing the conversion based on the output profile.

Conclusion

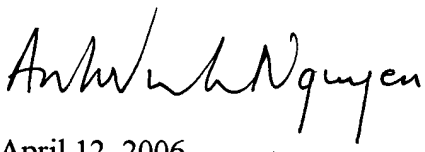
5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Madeleine AV Nguyen whose telephone number is 571 272-7466. The examiner can normally be reached on Tuesday-Thursday 12:30-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on 571 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



April 12, 2006

Madeleine AV Nguyen
Primary Examiner
Art Unit 2625